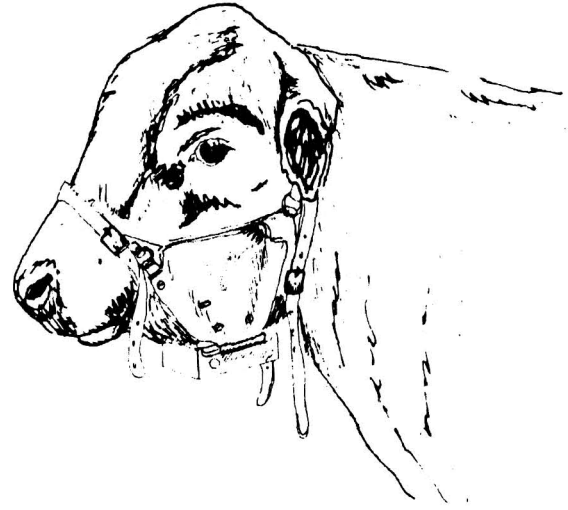


# Heat Detection Methods



Chin-Ball marking device. (Courtesy, American Breeders Service, De Forest, Wisconsin.)

The problem of heat detection becomes more important as herds get larger, good hired help is more difficult to come by, cows produce more milk, and animal value increases.

Under ordinary farm conditions, herdsmen miss an estimated 25 to 50 per cent of the heat periods. On the average, a missed heat period prolongs the calving interval by 30 to 40 days and means a loss of more than \$20 in a dairy herd and \$10 in a beef herd. Some owners pay their employees a bonus for catching a cow in heat. For these reasons, cattlemen are interested in heat detection methods. Among them are the following:

1. **Chin-Ball Marker** — This device was developed in New Zealand. It is similar to a ball-point pen attached to a halter under the chin of a surgically modified teaser bull, often called a "Gomer." (One of the first ranches in North America to use the Chin-Ball Marker gave this name to the bull on which it was used.) During preservice sex play, it is usual for a bull to place his head over the shoulders, back, and rump of the cow. This causes a smearing of the colored ink from the ball-point onto the cow.

One filling of the stainless steel container is sufficient to mark 15 to 25 cows. Experience indicates that one Gomer bull can work approximately 80 cows. In large pastures and in larger sized herds, it is best to have two bulls.

This method of heat detection is a most dependable management tool.

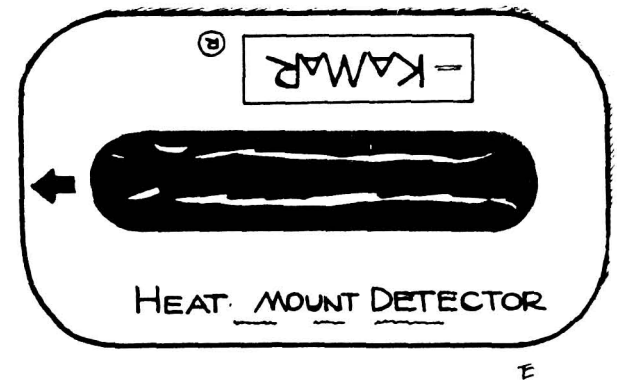
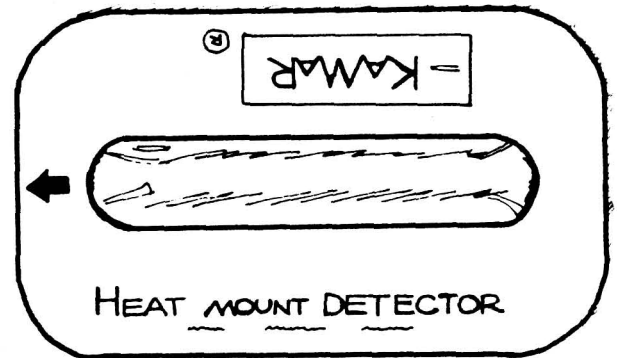
2. **The KaMaR Heat-Mount Detector** — The heat-mount detector is a 2 x 4½-inch fabric base to which is attached a white plastic capsule. Inside the capsule is a small plastic tube containing red dye. The tube is constructed so the dye is released slowly by moderate pressure. When enough dye is released from the tube (after about four to five seconds of pressure), it spreads over the inner lining of the capsule, causing it to turn red.

The detector relies on the natural bovine instinct of "bulling" or mounting during estrus. The pressure from the brisket of a mounting animal causes the dye to be released and the detector to turn red. If the cow does not stand for the mounting animal, there will not be enough pressure to release the dye and turn the detector red. This device has resulted in catching 95 per cent of the heat periods.

3. **Pen-O-Block** — The Pen-O-Block is a plastic tube placed within the bull's sheath and held in place with a stainless steel pin. The bull can detect cows in heat and mount them in a normal way, but the device mechanically prevents him from making contact with the cow.

The Pen-O-Block consists of a white plastic tube, the pin or cannula, two washers, and a cotter pin. The device is inserted within the bull's sheath and held in place by the cannula. The procedure is best carried out by a veterinarian, as it requires skill.

Properly used, these three aids will improve heat detection. They are by no means replacements for visual



Device for heat detection, as an aid in the artificial insemination of beef and dairy cows. At the top, the KaMaR Heat-Mount Detector is shown before activation. Center shows detector bright red after activation, indicating that cow is in heat. Lower view shows side or profile view of the device, which is applied to cow by an adhesive. (Courtesy, KaMaR, Inc., Steamboat Springs, Colorado.)

Continued on page 160

Rudolph, John .....	155
Thompson Cattle and Timber .....	143
Turner Farms .....	163
Williams Angus Farm, George A. ....	130
TEXAS	
Adams Angus Farm, Ray .....	143
Brinkman Bros. Cattle Co. ....	132-133
Clark Angus Ranch .....	143
Corbin Ranch .....	143
Deep Down Angus Ranch .....	143
Ebony Valley Angus .....	143
R & J Ranch .....	26-27
R-Nol-D Farms .....	143
R R Ranch .....	143
77 Ranch .....	84-85
VIRGINIA	
Bellemonde Farm .....	161
Kinloch Farm .....	(Inside Front Cover)
Linebacker Associates .....	142
Main Event Cattle Breeders .....	115
North American Breeders, Inc. ....	138
WISCONSIN	
American Breeders Service .....	95-96-97 98-99-100
Aurora Farms .....	43-44
Fernvale Angus Farm .....	135
Midwest Breeders Cooperative .....	62
National Landing Cattle Co. ....	161
WYOMING	
Chestnut Valley Ranch .....	161
76 Angus Ranch .....	110
Simonsen-Wilkes-Booth .....	121
COMMERCIAL	
American Berkshire Association .....	161
American Yorkshire Association .....	82
Appaloosa News .....	82
Auctioneers .....	154
Electric Cleaner Co. ....	161
Hampshire Swine Registry .....	161
HCR Measuring Devices .....	161
Hills Specialty Co. ....	161
New Mexico Stockman .....	161
Ovatech, Inc. ....	161
Paul Manufacturing Co., Inc. ....	161
Photographers .....	154
Stone Manufacturing & Supply Co. .	161
United Duroc Swine Registry .....	161

## AUXILIARY

*Continued from page 157*

Show, Des Moines, Iowa. It was a thrill to travel 2,500 miles to compete with the best. The competition was tough, but exciting. The only drawback was the midwest July weather, which for us westerners takes a bit of adjusting.

I would like to thank the Auxiliary for the scholarship I received. It came as quite a surprise, but it was greatly appreciated.

Once again I would like to thank the Abends for their support and help. I would like to thank my older sister and younger brothers for the many memorable hours we spent together working on our cattle. I can never show enough thanks to my mother for her extremely persistent encouragement, help and love. I look back now and realize it was all worthwhile, just as she told me so many times.

Last, but certainly not least, I would like to thank my father, Darrell Callison, for the things he has taught me through his unusual teaching style

and signs of appreciation. He is the only man I know that can relay a message or thought to me by a glance, grunt or movement of his body. He has only to show his appreciation by a simple reassuring nod of his head.

My future consists of working for Nonpareil and rodeoing with my best friend between semesters at college. I hope to obtain a Bachelor of Science degree in Animal Science from the University of Idaho, chase down a certain friend of the opposite sex, and build a top notch herd of registered Angus cattle. ☐

## HEAT DETECTION METHODS

*Continued from page 56*

heat detection; nor will they solve all the problems in breeding a beef herd artificially. Other factors that need attention are:

1. **Nutrition** — Cows must have adequate nutrition to cycle at a satisfactory rate for successful breeding.

2. **Rest interval** — This is very important, as cows must have calved at least 50 to 60 days prior to breeding for satisfactory performance.

3. **A.I. facilities** — Facilities should be adequate for handling and breeding the cow herd. Locate them where the cows tend to gather, such as the watering hole.

4. **Personnel** — Trained personnel are needed to do heat detection, gather the in-heat cows, and inseminate the herd. ☐

## KEYSTONE EXPO

*Continued from page 158*

MMF Marshella Pride 1278 shown by Becky MacIntosh, Appomattox, Virginia; Senior Calf Champion, Hill Crest Queen Mother 8857 shown by John W. Rucker, Hill Crest Angus, Delaplane, Virginia; Reserve Senior Calf Champion, Dakota Queen shown by James Butler, Warrenton, Virginia; Reserve Junior Champion, Arrowhead Erica Haru IK shown by J. H. and Ruth Launders, Delaplane, Virginia.

John W. Rucker won both get classes with calves sired by Hillcrest Double Eric. ☐

## USDA May Drop Border Ports List

The U. S. Department of Agriculture (USDA) has proposed dropping official designation of USDA—approved border ports for the export of livestock.

Dr. Pierre A. Chaloux, deputy administrator of USDA's Animal and Plant Health Inspection Service (APHIS), said a formal listing of border ports is no longer necessary because APHIS veterinary officials do not examine exported livestock at the crossing points. Canadian and Mexican officials normally designate the border locations where they examine animals being shipped into their respective countries.

Dr. Chaloux explained that livestock exported to Canada or Mexico are examined by accredited veterinarians, tested and certified healthy before leaving the farm of origin or other collection point. APHIS veterinarians must endorse health certificates to assure that the animals meet both USDA and foreign health requirements.

Five ports on the U.S.-Mexico border would continue to be designated for inspection of livestock being exported through Mexico to other countries. They are Brownsville, Laredo, Egale Paso, Del Rio and El Paso, Tex.

In the same action, officials also propose that APHIS port veterinarians specify the types of examining and restraining devices required at USDA-approved air and sea ports of export, where examinations are required before livestock leave the country. Existing regulations specify facilities suitable primarily for cattle, but do not require those more appropriate for other types of livestock.

The proposal would also exclude steer and spayed heifers from the brucellosis testing requirements.

Public comments on these proposals may be submitted through April 2 to the Deputy Administrator for Veterinary Services, APHIS, U. S. Department of Agriculture, 6505 Belcrest Road, Hyattsville, Maryland 20782. These proposals are scheduled for publication in the January 30 Federal Register. ☐